

[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2019-0882; Product Identifier 2018-SW-113-AD; Amendment 39-

19873; AD 2020-05-23]

RIN 2120-AA64

**Airworthiness Directives; Airbus Helicopters** 

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters. This AD requires inspecting the attachment screws of each main gearbox (MGB) suspension bar rear attachment fitting, and depending on the outcome, applying a sealing compound, performing further inspections, and replacing affected parts. This AD was prompted by reports of an elongated attachment screw and loss of tightening torque of the nut. The actions of this AD are intended to address an unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the *Federal Register* approved the incorporation by reference of a certain document listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus

Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at

https://www.airbus.com/helicopters/services/technical-support.html. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0882.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov in Docket No. FAA-2019-0882; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Union Aviation Safety Agency (previously European Aviation Safety Agency) (EASA) AD, any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is Docket Operations, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email matthew.fuller@faa.gov.

#### **SUPPLEMENTARY INFORMATION:**

#### Discussion

On November 8, 2019, at 84 FR 60349, the *Federal Register* published the FAA's notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters, delivered to the first owner or customer before September 1, 2018, and with attachment screws part number (P/N) 330A22013520 installed with MGB right hand (RH) side rear attachment fitting P/N 330A22270207 and left hand (LH) side rear attachment fitting P/N 330A22270206 of the MGB suspension bars. The NPRM proposed to require inspecting each screw on the RH and LH rear attachment by identifying the number of threads "F" that extend beyond the nut. If there are 2 or less threads on each affected part, or if there are 3 or more threads on any affected part with a thread height less than 5 mm (0.196 in), the NPRM proposed to require applying a sealing compound on the nuts, and convex and concave washers. If there are 3 or more threads on any affected part with a thread height of 5 mm (0.196 in) or more, the NPRM proposed to require removing the nut and inspecting the convex and concave washers for bent parts and corrosion. If any washers are bent or corroded, the NPRM proposed to require removing the washers from service. If the length "L" measurement of any attachment screw is greater than 59.3 mm (2.334 in), the NPRM proposed to require replacing the attachment fitting and the set of four screws. The proposed requirements were intended to prevent structural failure of an MGB attachment fitting, detachment of an MGB suspension bar, and subsequent loss of control of the helicopter.

The NPRM was prompted by EASA AD No. 2018-0282, dated December 19, 2018 (EASA AD 2018-0282), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters. EASA advises that occurrences were reported of elongated attachment screws and loss of tightening torque of the nut installed on the affected part. EASA also advises that an investigation is ongoing to determine the root cause of this event. EASA states this condition could lead to structural failure of an MGB rear attachment fitting and possibly result in detachment of an MGB suspension bar. Accordingly, EASA AD 2018-0282 requires a one-time inspection of each attachment screw for the number of threads that protrude beyond its bolt and depending on the outcome, applying a sealing compound on the nuts, and convex and concave washers; measuring the height of the protruding threads; inspecting the tightening torque of the nuts; inspecting the upper and lower convex and concave washers; measuring and inspecting removed attachment screws; and replacing affected parts. EASA AD 2018-0282 also requires reporting information to Airbus Helicopters. EASA states EASA AD 2018-0282 is considered to be an interim action and further AD action may follow.

#### **Comments**

The FAA gave the public the opportunity to participate in developing this AD.

Benjamin Pico and Patrick Imperatrice commented that they support the NPRM.

#### **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union,

EASA has notified the FAA of the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all information provided by EASA and determining the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

#### **Interim Action**

The FAA considers this AD interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, the FAA might consider additional rulemaking.

#### Differences Between this AD and the EASA AD

The EASA AD requires the operator to perform a torque check and report the value to Airbus, whereas this AD does not.

## **Related Service Information Under 1 CFR part 51**

The FAA reviewed Airbus Helicopters Alert Service Bulletin No. AS332-53.02.04, Revision 0, dated November 21, 2018, which specifies checking the number of threads that protrude beyond the bolt of the attachment screws on the RH and LH rear attachment fittings of the MGB. This service information also specifies a one-time inspection of the affected parts and depending on findings, accomplishment of applicable corrective actions.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

The FAA estimates that this AD affects14 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Inspecting the number of threads and applying a sealing compound takes about 3 work-hours for an estimated cost of \$255 per helicopter and \$3,570 for the U.S. fleet.

Replacing an attachment fitting and the set of four screws takes about 16 workhours and parts cost \$6,330 for an estimated replacement cost of \$7,690.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

# **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866,
- 2. Will not affect intrastate aviation in Alaska, and
- 3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

## § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020-05-23 **Airbus Helicopters:** Amendment 39-19873; Docket No. FAA-2019-0882; Product Identifier 2018-SW-113-AD.

# (a) Applicability

This AD applies to Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters, certificated in any category, delivered to the first owner or

customer before September 1, 2018, and with attachment screws part number (P/N) 330A22013520 installed with main gearbox (MGB) right hand (RH) side rear attachment fitting P/N 330A22270207 and left hand (LH) side rear attachment fitting P/N 330A22270206 of the MGB suspension bars.

### (b) Unsafe Condition

This AD defines the unsafe condition as elongation of the attachment screws and loss of tightening torque of the nut. This condition could result in structural failure of an MGB attachment fitting, detachment of an MGB suspension bar, and subsequent loss of control of the helicopter.

#### (c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

## (d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

## (e) Required Actions

Within 110 hours time-in-service, remove the sealing compound and inspect each screw on the RH and LH rear attachment fitting by identifying the number of threads "F" that extend beyond the nut as shown in Detail "B" of Figure 2 of Airbus Helicopter Alert Service Bulletin No. AS332-53.02.04, Revision 0, dated November 21, 2018 (ASB AS332-53.02.04).

- (1) If there are 2 or less threads on each of the four screws; or there are 3 or more threads on any screw with a thread height "H" less than 5 mm (0.196 in), before further flight, apply a sealing compound on the nuts, and convex and concave washers.
- (2) If there are 3 or more threads on any screw with a thread height "H" of 5 mm (0.196 in) or more, before further flight, do the following, and for more than one screw, do one at a time while working in a cross pattern: Remove from service the nut; and remove the screw from the helicopter and measure the length "L" of the screw as shown in Detail "D" of Figure 2 of ASB AS332-53.02.04.
- (i) If any washers are bent or corroded, before further flight, remove from service the washers.
- (ii) If the length "L" measurement is less than or equal to 59.3 mm (2.334 in) for each screw removed as required by paragraph (e)(2) of this AD, visually inspect the screw for corrosion and cracks.
- (A) For each screw with corrosion or a crack, before further flight, replace the screw with an airworthy screw.
- (B) For any screw with no corrosion or cracks, before further flight, re-install the screw and washers. Install a new nut and apply sealant.
- (iii) If the length "L" measurement is greater than 59.3 mm (2.334 in) for any screw removed as required by paragraph (e)(2) of this AD, before further flight, replace the rear attachment fitting that the screw was removed from and its set of four screws, washers, and nuts, and apply sealant as shown in Figures 2 and 3 of ASB AS332-53.02.04.

### (f) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.
- (2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

## (g) Additional Information

The subject of this AD is addressed in European Union Aviation Safety Agency (previously European Aviation Safety Agency) (EASA) AD No. 2018-0282, dated December 19, 2018. You may view the EASA AD on the Internet at https://www.regulations.gov in Docket No. FAA-2019-0882.

# (h) Subject

Joint Aircraft Service Component (JASC) Code: 6320, Main Rotor Gearbox.

## (i) Material Incorporated by Reference

(1) The Director of the *Federal Register* approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required

by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Alert Service Bulletin No. AS332-53.02.04, Revision 0,

dated November 21, 2018.

(ii) [Reserved]

(3) For service information identified in this AD, contact Airbus Helicopters,

2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-

0323; fax 972-641-3775; or at https://www.airbus.com/helicopters/services/technical-

support.html.

(4) You may view this service information at FAA, Office of the Regional

Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX

76177. For information on the availability of this material at the FAA, call 817-222-5110.

(5) You may view this service information that is incorporated by reference at the

National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, email fedreg.legal@nara.gov, or go to:

https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on March 16, 2020.

Lance T. Gant, Director,

Compliance & Airworthiness Division,

Aircraft Certification Service.

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